INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Bridge 21037 Survey Number: WA-II-1111

Project: Bridge Rehab Agency: FHWA/SHA

Site visit by MHT Staff: _X_ no ___ yes Name _____ Date _____

Eligibility recommended _____ Eligibility **not** recommended _X_

Criteria: ___A ___B ___C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Justification for decision: (Use continuation sheet if necessary and attach map)

Based upon the MHT form and accompanying materials, Bridge No. 21037 located on MD Route 68 over Antietam Creek in Washington County, MD, is not eligible for listing in the National Register of Historic Places. Bridge No. 21037 is a 1937 concrete through-girder bridge located a few feet from the National Register-eligible Booth's Mill Bridge, a stone arch bridge dating to 1833. Bridge 21037 was designed in accordance with a standardized plan provided by the State Roads Commission and was built to replace a wooden truss bridge that spanned the water race of a former mill on the site (destroyed by fire in the late 19th century). The bridge is typical of the standardized bridge plans of the 1930s and lacks the architectural distinctiveness necessary to qualify it for listing under Criterion C. The bridge post-dates the construction of the mill and its period of significance, and thus does not meet Criterion A. The bridge is not known to have been associated with persons significant to our past and thus does not qualify for listing under Criterion B.

Finally, based upon a Phase I archaeological survey conducted in 1987, it was determined that whatever potentially significant archaeological resources which may have remained from the period of the mill's operation have been destroyed by repeated road grading, construction, and terracing of the area surrounding the bridge. It is therefore not eligible under Criterion D.

Documentation on the property/district is presented in: Review and Compliance Files

Prepared by: Rita Suffness, Project Planning Division

Elizabeth Hannold and Kim Williams — February 12, 1996
Reviewer, Office of Preservation Services — Date

NR program concurrence: ✓ yes ___ no ___ not applicable

Orlando Ridout V — March 8, 1996.
Reviewer, NR program — Date

Survey No. WA-II-1111

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

____	Eastern Shore	(all Eastern Shore counties, and Cecil)
____	Western Shore	(Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
____	Piedmont	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
__X__	Western Maryland	(Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

____	Paleo-Indian	10000-7500 B.C.
____	Early Archaic	7500-6000 B.C.
____	Middle Archaic	6000-4000 B.C.
____	Late Archaic	4000-2000 B.C.
____	Early Woodland	2000-500 B.C.
____	Middle Woodland	500 B.C. - A.D. 900
____	Late Woodland/Archaic	A.D. 900-1600
____	Contact and Settlement	A.D. 1570-1750
____	Rural Agrarian Intensification	A.D. 1680-1815
____	Agricultural-Industrial Transition	A.D. 1815-1870
____	Industrial/Urban Dominance	A.D. 1870-1930
__X__	Modern Period	A.D. 1930-Present
____	Unknown Period (___ prehistoric	___ historic)

III. Prehistoric Period Themes:

____	Subsistence
____	Settlement
____	Political
____	Demographic
____	Religion
____	Technology
____	Environmental Adaptation

IV. Historic Period Themes:

____	Agriculture
__X__	Architecture, Landscape Architecture, and Community Planning
____	Economic (Commercial and Industrial)
____	Government/Law
____	Military
____	Religion
____	Social/Educational/Cultural
__X__	Transportation

V. Resource Type:

Category: Structure

Historic Environment: Rural

Historic Function(s) and Use(s): Transportation/Road-related/Bridge

Known Design Source: State Roads Commission

Bridge No. 21037 (WA-II-1111)
Washington County, MD

HISTORIC CONTEXT:

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA

Geographic Organization: Western Maryland

Chronological/Developmental Period: Modern (1930-Present)

Prehistoric/Historic Period Theme: Prehistoric/Historic Archaeology, Transportation, Commerce, Engineering

Resource Type:

Category: Structure

Historic Environment: Rural

Historic Function(s) and Uses: Transportation

Known Design Source: Maryland State Roads Commission

Survey No. WA-II-1111

Magi No.

DOE __yes x no

Maryland Historical Trust State Historic Sites Inventory Form

MARYLAND INVENTORY OF HISTORIC PROPERTIES

1. Name (indicate preferred name)

historic

and/or common Bridge 21037

2. Location

street & number MD Route 68 N/A not for publication

city, town Boonsboro x vicinity of congressional district

state Maryland county Washington

3. Classification

Category	Ownership	Status	Present Use	
___ district	x public	x occupied	___ agriculture	___ museum
___ building(s)	___ private	___ unoccupied	___ commercial	___ park
x structure	___ both	___ work in progress	___ educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	___ yes: restricted	___ government	___ scientific
	___ being considered	x yes: unrestricted	___ industrial	x transportation
	x not applicable	___ no	___ military	___ other:

4. Owner of Property (give names and mailing addresses of all owners)

name Maryland Department of Transportation--State Highway Administration

street & number 707 North Calvert Street telephone no.: (410) 333-1183

city, town Baltimore state and zip code MD 21202

5. Location of Legal Description

courthouse, registry of deeds, etc. State Highway Administration liber N/A

street & number 707 North Calvert St. folio N/A

city, town Baltimore state MD

6. Representation in Existing Historical Surveys

title N/A

date ___ federal ___ state ___ county ___ local

depository for survey records

city, town state

7. Description

Survey No. WA-II-1111

Condition		Check one	Check one
___ excellent	___ deteriorated	_x_ unaltered	_x_ original site
___ good	___ ruins	___ altered	___ moved date of move _____
_x_ fair	___ unexposed		

Prepare both a summary paragraph and a general description of the resource and its various elements as it exists today.

Bridge 21037 is a concrete through girder bridge that carries Maryland Route 68 across a former mill race northwest of Boonsboro in Washington County, Maryland. Through girder bridges are a variation of slab spans in which the slab is reinforced by the use of parapets that function as girders carrying much of the load to the abutments (Spero 1994:144). Bridge 21037 measures approximately 30 feet in length, and the roadway is approximately 24 feet wide. The substructure of the bridge is buried, but inspection of the visible portions shows that it was constructed in a single piece. The wing walls are provided by the concrete lining of the now-abandoned and filled-in race. The parapet is pierced concrete connected at each end of the bridge to rectangular pilasters. There is no plaque remaining on the bridge.

The bridge is located only a few feet from the Booth's Mill bridge, a stone arch bridge dating to 1833 that carries Route 68 across Antietam Creek. The mill race once delivered water from a dam some 300 feet north of the bridge to a mill approximately 150 feet to the south. The mill was destroyed by fire in the late nineteenth century. The structure now on the site of the former mill is an abandoned twentieth-century hydroelectric plant constructed by the Potomac and Edison Company. North of the bridge is a late-twentieth century building housing restrooms for the Devil's Backbone county park.

8. Significance

Survey No. WA-II-1111

Period	Areas of Significance—Check and justify below				
___ prehistoric	_x_ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion	
___ 1400–1499	_x_ archeology-historic	___ conservation	___ law	___ science	
___ 1500–1599	___ agriculture	___ economics	___ literature	___ sculpture	
___ 1600–1699	___ architecture	___ education	___ military	___ social/ humanitarian	
___ 1700–1799	___ art	_x_ engineering	___ music	___ theater	
___ 1800–1899	_x_ commerce	___ exploration/settlement	___ philosophy	_x_ transportation	
_x_ 1900–	___ communications	___ industry	___ politics/government	___ other (specify)	
		___ invention			

Specific dates 1937 **Builder/Architect** Maryland Roads Commission

check: Applicable Criteria: _x_A _x_B _x_C _x_D
and/or
Applicable Exception: __A __B __C __D __E __F __G

Level of Significance: __national _x_state _x_local

Prepare both a summary paragraph of significance and a general statement of history and support.

Although Maryland had a fairly extensive network of roads in the late nineteenth century, most of them were unimproved dirt roads, dusty or muddy, depending on the weather. Long-neglected, they were usually full of ruts created by wagon wheels. The late-nineteenth century popularity of bicycling began a demand for better roads. The advent of motor vehicles in the early twentieth century further increased that demand. Between 1898 and 1916, Maryland began the enormous task of improving her road system, first under the aegis of the Highway Division of the Maryland Geological Survey, and later under the State Roads Commission. This incentive was further assisted by the Federal Aid Road Act of 1916 (Spero 1994). During the 1920s and 1930s, roads throughout the state were widened and macadamized, and many narrow and deteriorating wooden bridges were replaced with wider metal truss or concrete structures.

Concrete, in its modern form, began to be used for bridges in the last quarter of the nineteenth century. Its first manifestation after its rediscovery took the form of concrete arch bridges. By the first decade of the twentieth century, however, reinforced concrete slab designs were demonstrating their usefulness for small highway spans. The concrete through girder bridge was an early and popular variation of the slab span (Spero 1994).

In tandem with the effort to improve the network of roads was the development of standardized bridge designs for commonly needed reinforced concrete structures. Standardized bridge plans were first published by the State Roads Commission in 1909. They soon proved their efficacy by providing a cost-effective method for constructing or replacing the large number of small spans required on Maryland's roadways. Additional plans were issued in 1912, 1919, 1920, 1924, 1930, and 1933 (Spero 1994:23-30).

Bridge 21037 was one such bridge constructed in accordance with a standardized plan provided by the State Roads Commission. It was built in 1937, to specifications issued in the 1933 standardized plan, to replace a former deteriorated wooden truss bridge that spanned the water race. The race was originally associated with a grist mill that was destroyed by fire in the late nineteenth century. It also may have been reused with the hydroelectric facility constructed on the site of the former mill. The race was almost entirely filled in the 1960s or 1970s by a former owner of the hydroelectric plant (Berger Burkavage, Inc. 1987).

Bridge 21037 has been evaluated under National Register of Historic Places Criteria A, B, C, and D. It does not appear to be eligible for listing in the National Register under any of the criteria.

(See continuation sheets)

9. Major Bibliographical References

Survey No. WA-II-1111

Spero, P.A.C., & Co. Historic Bridges in Maryland: Historic Context Report, 1994.
Berger Burkavage. Phase I Archaeological Survey, 1987.
National Park Service. National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation
Maryland Historical Trust. Maryland Comprehensive Historic Preservation Plan.

10. Geographical Data

Acreage of nominated property less than 1

Quadrangle name Funkstown **Quadrangle scale** 1:24000

UTM **References** do NOT complete UTM references

	Zone	Easting	Northing
A			
B			
C			
D			
E			
F			
G			
H			

Verbal boundary description and justification

Boundary includes the bridge , roadway, abutments.

List all states and counties for properties overlapping state or county boundaries N/A

state	code	county	code
state	code	county	code

11. Form Prepared By

name/title Alice Crampton, Senior Historian

organization Parsons Engineering Science, Inc **date** May 4, 1995

street & number 10521 Rosehaven Street **telephone** (703) 218-1093

city or town Fairfax **state** VA 22030

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
Shaw House
21 State Circle
Annapolis, Maryland 21401
(301) 269-2438

PS-2746

The bridge was first evaluated for its significance in association with the mill under Criteria A and B. Although the current bridge spans what was once the old mill race, that mill race was filled in with earth and debris taken from the power plant in the late 1960s or early 1970s (Berger Burkavage 1987). Because the bridge was constructed more than 35 years after the mill was destroyed, it cannot be said to be significant under Criterion A for its association with the mill; nor can it be said to be significant under Criterion B for its association with John Booth, who reportedly built the mill in 1791. Both the mill and the mill race lack integrity; thus, there is no association of the bridge with the mill's operation.

Bridge 21037 was then evaluated under Criterion A for its significance in the development of transportation in the early modern period. To be eligible for listing in the National Register, the property must be "strongly representative of the context or be the sole example of a property type that is important in illustrating the historic context."

Maryland Route 68 is a major route between Boonsboro and Williamsport, as it had been since the early nineteenth century (Spero 1994). As such, it presumably received the attention of the State Roads Commission in the 1920s and 1930s. Although the bridge was built in 1937 to replace a former wooden structure, it does not appear to be strongly representative of the 1920s and 1930s road improvement campaign, which aimed to widen and pave roadways and to replace narrow bridges that were incapable of handling the heavier, faster vehicular traffic.

Route 68 does not appear to have been widened at the time of the bridge's construction. Booth's Mill bridge which is adjacent to Bridge 21037 was not widened at that time. Bridge 21037 appears to have been a routine bridge replacement, not a particularly significant one that would illustrate the trend toward improved roadways. Nor is the bridge the sole example of a concrete girder bridge that would illustrate a technological advance in bridge design in the early modern period. Maryland is replete with concrete girder bridges constructed during this period that span its creeks and rivers.

Macadamizing Route 68 undoubtedly improved transportation between Boonsboro and Williamsport, but it cannot be said that Bridge 21037 was of particular importance in this endeavor or that it illustrates the development of transportation in the early modern period.

Bridge 21037 was also evaluated under Criterion C for its significant design or construction techniques. To be eligible under Criterion C, a property must "embody distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic value; or represent a significant and distinguishable entity whose components may lack individual distinction." Nevertheless, to avoid listing every 1930s concrete through girder bridge in the United States, it must be demonstrated that the distinctive characteristics embodied in the structure are of sufficient significance to warrant its inclusion in the National Register. In evaluating Bridge 21037 under Criterion C, it is necessary to weigh its significance in terms of the evolution of bridge technology at the time of its construction in 1937.

The reintroduction of concrete as a building material and its further improvement in the form of reinforced concrete were undoubtedly of great importance for the construction of bridges. Nevertheless, these advances came about in the nineteenth century and were well established by the time Bridge 21037 was built in 1937. It cannot, therefore, be said that its composition of reinforced concrete was a significant innovation that would make it worthy of listing in the National Register.

Did its design as a concrete through girder bridge signify an important innovation in 1937? Concrete through girder bridges were an important adaptation of the concrete slab, making bridges stronger and safer. Nevertheless, the concrete through girder design had been used at least since 1912 (Spero 1994). It cannot be said, then, that this bridge, coming as it did a quarter century later, represents a significant departure from or addition to what was, by then, a common bridge design.

A final significant development in the evolution of bridge technology was the use of standardized bridge plans. The use of standardized bridge plans was initiated by the railroads in the nineteenth century. By 1900, bridge designers realized the practicality of standardized plans for the construction of new bridges or the replacement of outmoded bridges in the modernization of Maryland's roadway network. The Maryland State Road Commission issued its first set of standardized plans in 1909. Six more sets of standardized plans were published between 1909 and 1933 (Spero 1994:30-32). Bridge 21037 was build according to the plans that had already been in existence for four years. It cannot be said that the use of

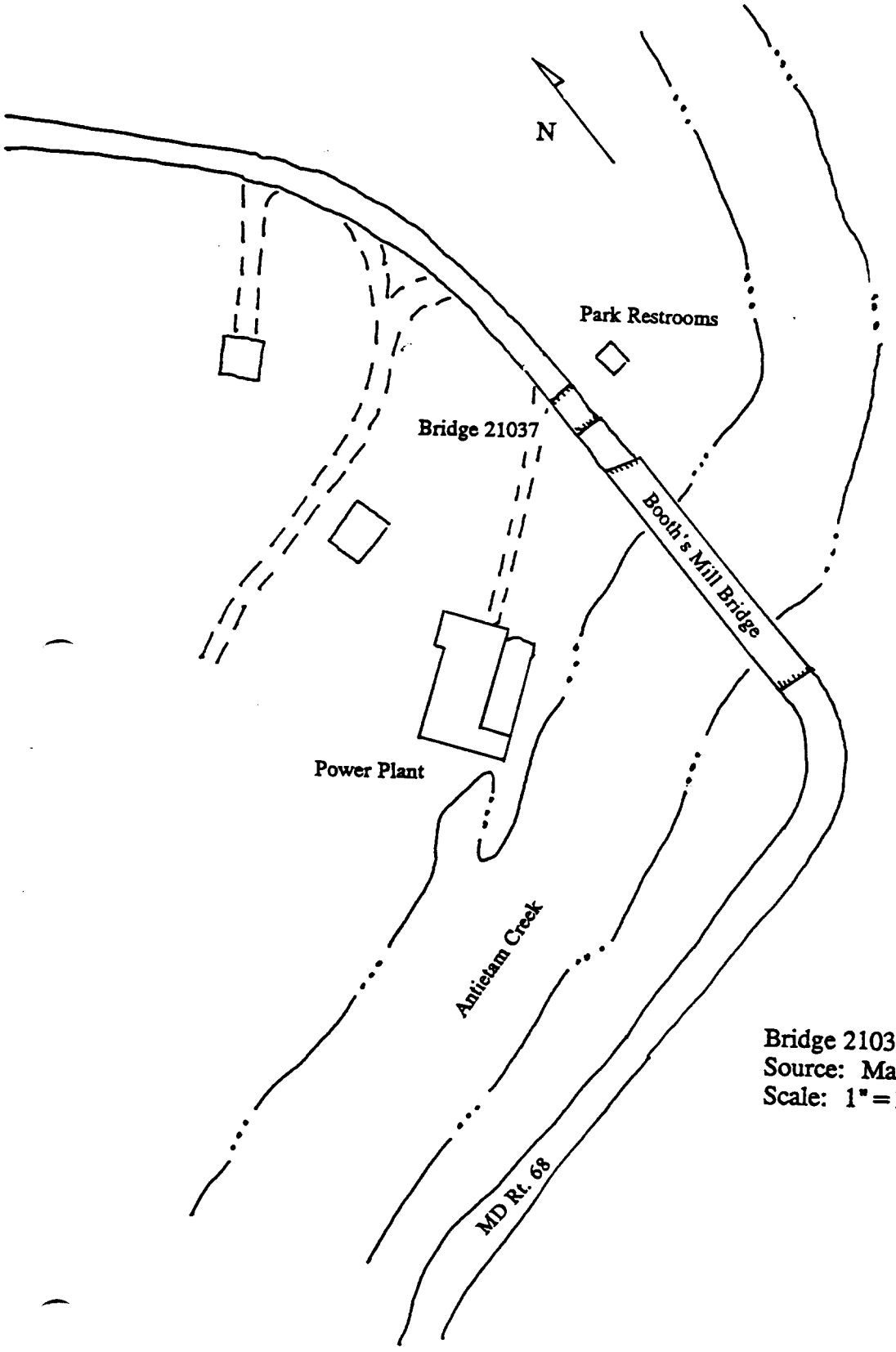
standardized plans in the design of a 1937 bridge represents a significant engineering innovation that would warrant listing the bridge in the National Register.

The use of a standard plan, issued by a state agency, in the design of Bridge 21037 also precludes listing it in the National Register as the work of a master. In addition, it is not reasonable to suppose that a bridge built to standard specifications in an attempt to cut costs would possess high artistic value.

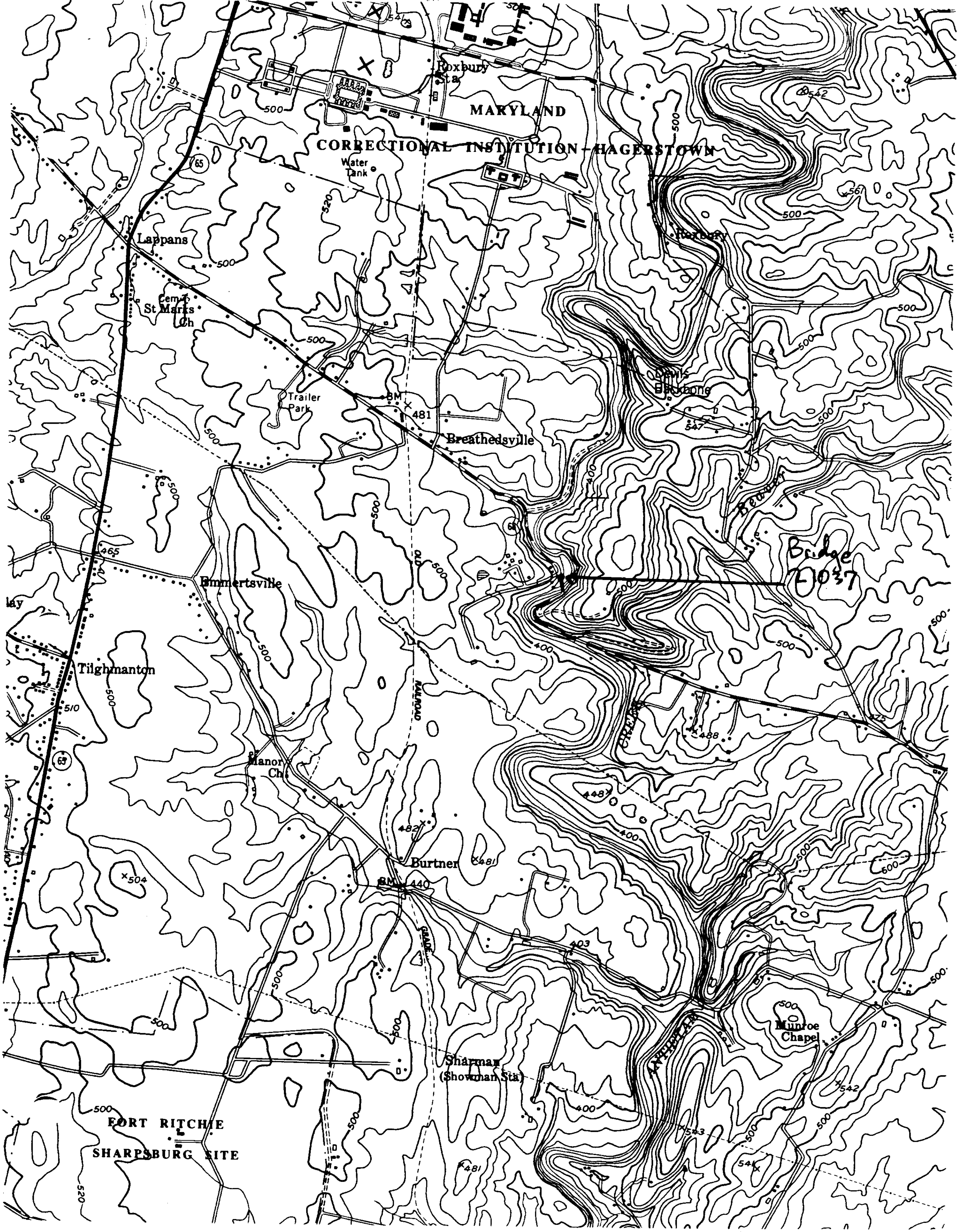
An additional issue to be considered with regard to Bridge 21037 is its integrity of setting, feeling, and association. Integrity of setting refers to "the *character* of the place in which the property played its historical role. It involves *how*, not just where, the property is situated and its relationship to surrounding features and open space." Integrity of feeling "results from the presence of physical features that, taken together, convey the property's historic character." Integrity of association provides the link between the property and the historic event. "A property retains association if it *is* the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer." Because the open space under the bridge has been filled in, leaving it "spanning" level ground, the bridge no longer retains its relationship to its former surrounding features. There is no open space beneath the bridge, that open space being one of the key features in defining a "bridge". Its association is no longer sufficiently intact to convey to the observer that it is, in fact, a bridge at all.

Evaluation under National Register Criterion D, based on a Phase I archaeological survey done by Berger Burkavage, Inc. in 1987, suggests that whatever potentially significant archaeological resources may have remained from the period of the mill's operation or that of the hydroelectric facility have been destroyed by repeated road grading, construction, and terracing of the area surrounding the proposed project site (Berger Burkavage, Inc. 1987).

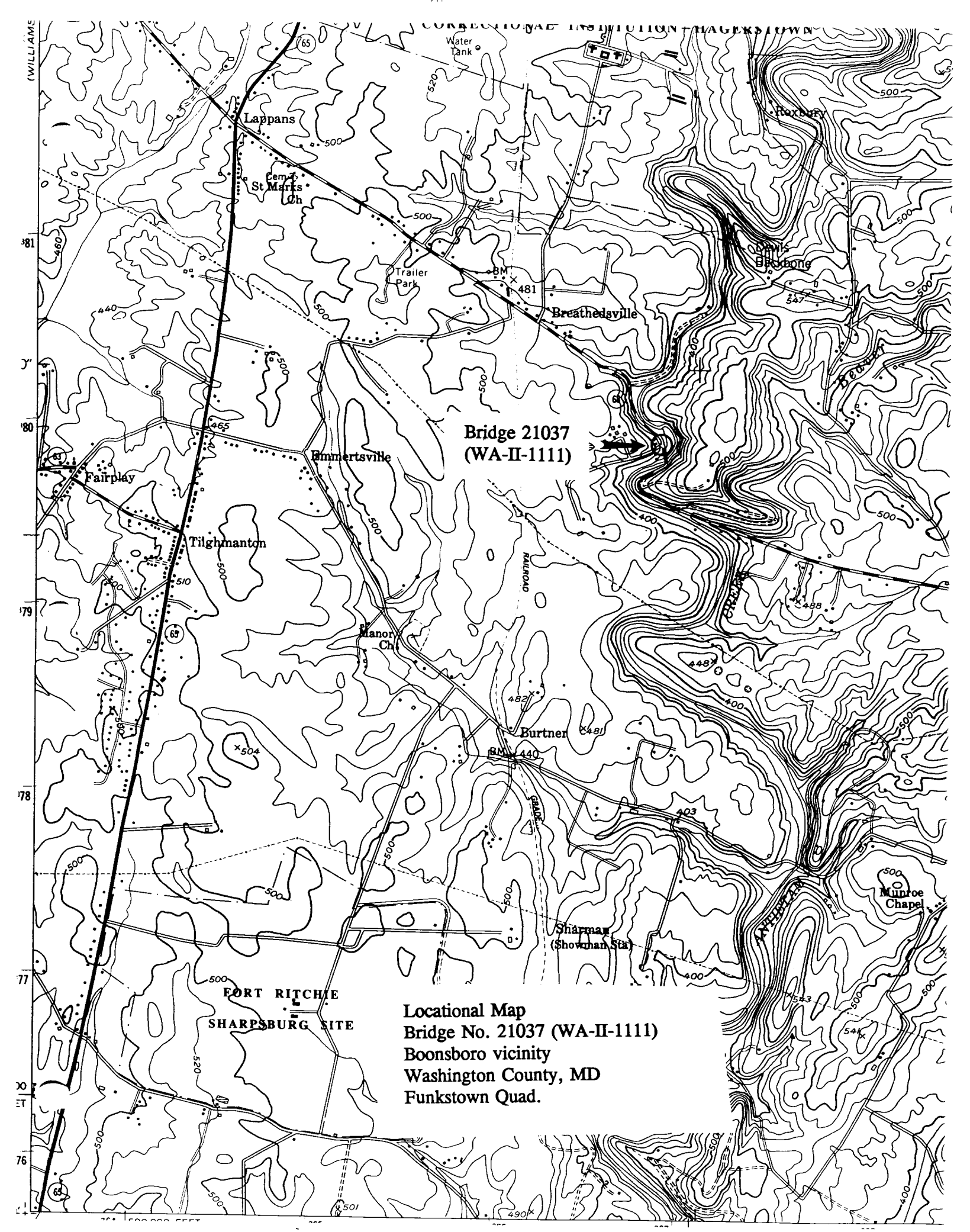
WA-II-1111



Bridge 21037
Source: Maryland SHA
Scale: 1"=100'


MARYLAND
CORRECTIONAL INSTITUTION - HAGERSTOWN
Roxbury Sta
Water Tank
Lappans
Cem
St Marks Ch
Trailer Park
BM 481
Breathedsville
Devils Backbone
Roxbury
Beaver
Bridge 1037
Emmertsville
Tilghmanton
OLD RAILROAD GRADE
Manor Ch
Burtner
BM 440
Munroe Chapel
Sharman (Showman Sta)
FORT RITCHIE
SHARPSBURG SITE

WA-II-1111



Locational Map
Bridge No. 21037 (WA-II-1111)
Boonsboro vicinity
Washington County, MD
Funkstown Quad.

WA II-1111
Bridge 12037
Washington County, MO
Alice Crampton 7-1994
Parsons Engineering Science, Inc.
Bridge 12037 Facing East
West Elevation
1/5

WA II - 111 !
Bridge 12037
Washington County, MD.
Alice Crampton 7-1994
Parsons Engineering Science, Inc
Bridge 12037, Facing West
East Elevation
4/5


SPEED LIMIT
20
WEIGHT LIMIT
14 TONS

WA-III
Bridge 12037
Washington County, MD
Alice Crampton - 1994
Parsons Engineering Science, Inc
Bridge 12037, Facing N.E
(SW Elevation)
3/5

WA II-111
Bridge 12037
Washington County, MD
Alice Crampton 7-94
Parsons Engineering Science, Inc
Bridge 12037 East Elevation
Facing west
415


NTRANCE
DEVIL'S
BACKBONE
COUNTY PARK
20

WA II-1111
Bridge 12037
Washington County, MD
Alice Crampton 7-9X
Parsons Engineering Science, Inc
South Approach
5/5